

**Amendments to the Claims:**

The following listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) Micro-machined vibrating structure comprising a fixing end (5), connected in secured manner to a fixed support (6), and at least one vibrating wall (7), in which progressive or stationary waves are generated and comprising a base (8) and a free end (9), the vibrating wall (7) being formed by a side wall of a hollow shell, vibrating structure characterized in that wherein the fixing end (5) is formed by the base (8) of the hollow shell, a naturally decoupled zone being situated between the fixing end (5) and the free end (9) of the vibrating wall (7).

2. (Currently Amended) Vibrating structure according to claim 1, characterized in that wherein the side wall of the hollow shell has a constant thickness (e).

3. (Currently Amended) Vibrating structure according to claim 1, characterized in that wherein the side wall of the hollow shell has a variable thickness, from a first value (e1) at the free end (9) to a second value (e2), greater than the first value (e1), at the base (8) of the hollow shell.

4. (Currently Amended) Vibrating structure according to claim 3, characterized in that wherein the thickness (e) of the side wall of the hollow shell varies linearly between the free end (9) and the base (8) of the hollow shell.

5. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 4~~ claim 1, characterized in that wherein the external face of the side wall of the hollow shell is cylindrical.

6. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 4~~ claim 1, characterized in that wherein the external face of the side wall of the hollow shell is tapered.

7. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 6~~ claim 1, characterized in that wherein the base (8) of the side wall of the hollow shell has a predetermined thickness ( $e, e_2$ ) and a circular cross-section of predetermined radius ( $R, R_2$ ).

8. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 6~~ claim 1, characterized in that wherein the base (8) of the side wall of the hollow shell has a predetermined thickness ( $e, e_2$ ) and an elliptical cross-section.

9. (Currently Amended) Vibrating structure according to ~~any one of the claims 1 to 8~~ claim 1, characterized in that wherein the vibrating wall (7) is made in a silicon substrate (10).

10. (Currently Amended) Vibrating structure according to claim 9, characterized in that wherein the fixed support (6) is made in the same substrate (10).

11. (Currently Amended) Vibrating structure according to claim 9, characterized in that wherein the fixed support (6) is formed by an over-doped layer (11) of the substrate (10).

12. (Currently Amended) Vibrating structure according to claim 9, characterized in that wherein the fixed support (6) is formed by a silicon oxide layer (12) formed under the substrate (10).

13. (Currently Amended) Vibrating structure according to claim 9, characterized in that wherein the fixed support (6) is formed by a silicon oxide layer buried in the substrate (10).

14. (Currently Amended) Micro-gyroscope characterized in that it comprises comprising at least one vibrating structure according to any one of the claims 1 to 13, and electrodes (15) formed in the same substrate (10) as the vibrating wall (7) of the vibrating structure (4).

15. (Currently Amended) Micro-gyroscope according to claim 14, characterized in that it comprises comprising two symmetrically arranged vibrating structures (4a) and (4b) sealed by their respective fixed supports (6).